

CLAIMS

- 1           1.       A battery charger for a cellular phone for use in a vehicle having  
2       a cigarette lighter receptacle, said charger comprising:  
3           a housing having first and second ends, said first end of said housing  
4       being dimensioned for slip fit engagement into the cigarette lighter receptacle  
5       and includes electrical contacts for electrically communicating with  
6       complementary electrical contacts disposed within the cigarette lighter  
7       receptacle, said second end of said housing having an electrical conductor  
8       attached thereto that terminates in an electrical connector for connecting to the  
9       cellular phone;  
10       a charger circuit disposed within said housing; said charger circuit in  
11       electrical communication with said electrical contacts of said housing and said  
12       electrical conductor;  
13       a visual indicator circuit having at least one light source supported  
14       within said housing; and  
15       an incoming call sensing circuit in electrical communication with said  
16       visual indicator circuit, said incoming call sensing circuit operative to detect an  
17       incoming call signal to said cellular phone and to produce an electrical signal in  
18       response to detecting said incoming call signal, said incoming call sensing  
19       circuit being further operative to communicate said electrical signal to said  
20       visual indicator circuit for causing said at least one light source to illuminate.

1           2.     The battery charger of claim 1 wherein said at least one light  
2     source is a solid-state device.

1           3.     The battery charger of claim 2 wherein said solid-state device is  
2     a light emitting diode.

1           4.     The battery charger of claim 1 wherein said at least one light  
2     source flashes in response to receiving said electrical signal from said sensing  
3     circuit.

1           5.     The battery charger of claim 1 wherein a portion of said housing  
2     is translucent and said at least one light source is disposed therein whereby said  
3     at least one light source is operative to illuminate through said translucent  
4     portion of said housing.

1           6.     The battery charger of claim 1 comprising at least two light  
2     sources.

1           7.     The battery charger of claim 6 wherein said at least two light  
2     sources emit different colors of illumination.

1           8.     The battery charger of claim 1 further comprising a signal  
2     conditioning and activation circuit disposed between said incoming call circuit

3 and said visual indicator circuit operative to receive the incoming call signal  
4 and condition the incoming call signal for activating said visual indicator  
5 circuit.

1 9. The battery charger of claim 1 wherein said incoming call  
2 sensing circuit is disposed within the cellular phone.

1 10. The battery charger of claim 1 wherein the incoming call  
2 sensing circuit is disposed within said housing.

1 11. The battery charger of claim 1 further comprising a reset button  
2 disposed on said housing and in communication with said visual indicator  
3 circuit.

1 12. The battery charger of claim 11 wherein said visual indicator  
2 circuit is operative to cause said at least one light source to continue to  
3 illuminate after an incoming call signal has been detected until said visual  
4 indicator circuit has been reset.

1 13. A battery charger for a cellular phone for use in a vehicle having  
2 a cigarette lighter receptacle, said charger comprising:  
3 a housing having first and second ends, said first end of said housing  
4 being dimensioned for slip fit engagement into the cigarette lighter receptacle

5 and includes electrical contacts for electrically communicating with  
6 complementary electrical contacts disposed within the cigarette lighter  
7 receptacle, said second end of said housing having an electrical conductor  
8 attached thereto that terminates in an electrical connector for connecting to the  
9 cellular phone;

10 a charger circuit disposed within said housing; said charger circuit in  
11 electrical communication with said electrical contacts of said housing and said  
12 electrical conductor;

13 a visual indicator circuit having at least one light source supported  
14 within said housing;

15 an incoming call sensing circuit in electrical communication with said  
16 visual indicator circuit, said incoming call sensing circuit operative to detect an  
17 incoming call signal to said cellular phone and to produce an electrical signal in  
18 response to detecting said incoming call signal, said incoming call sensing  
19 circuit being further operative to communicate said electrical signal to said  
20 visual indicator circuit for causing said at least one light source to illuminate  
21 wherein said visual indicator circuit is operative to cause said at least one light  
22 source to continue to illuminate after said incoming call signal has been  
23 detected until said visual indicator circuit has been reset; and

24 a reset button disposed on said housing and in communication with said  
25 visual indicator circuit, said reset button operative to cause said visual indicator  
26 circuit to be reset when pushed.

1           14.    The battery charger of claim 13 wherein said at least one light  
2    source is a solid-state device.

1           15.    The battery charger of claim 14 wherein said solid-state device  
2    is a light emitting diode.

1           16.    The battery charger of claim 13 wherein said at least one light  
2    source flashes in response to receiving said electrical signal from said sensing  
3    circuit.